Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for determining whether a human or animal subject is at risk of developing a neurodegenerative disorder characterized by the formation of ~~diagnosis of a disorder associated with the development of~~ beta amyloid deposits or fibrils ~~in a human or animal subject or assessing the efficacy of treatment rendered to the subject for such disorder~~, said method comprising the step ~~steps~~ of:

~~A)~~ determining whether at least one ~~the presence of~~ mtDNA CR mutation selected from the group consisting of ~~mutations~~ T414C mutations and T477C mutations is or are present in tissue, cells or body fluid obtained from the subject~~; and~~

~~B) comparing a mtDNA CR value obtained by the quantitative determination made in Step A with a mtDNA CR value representative of subjects who suffer from a disorder associated with the development of beta amyloid deposits or fibrils~~.

2. (Currently Amended) A method for determining whether a human or animal subject is at risk of developing a neurodegenerative disorder characterized by the formation of beta amyloid deposits or, said method comprising the step of:

determining whether the quantity of at least one mtDNA CR mutation selected from the group consisting of T146C, T152C, A189G and T195C is or are greater in tissue, cells or body fluid obtained from the subject than in the same tissue, cells or body fluid type obtained from control subjects who do not suffer from neurodegenerative disease ~~according to Claim 1, wherein Step A comprises making a qualitative determination that mtDNA CR mutation is or is not present~~.

3-12. (Cancelled)

13. (Currently Amended) A method according to either of claims 1 or 2 wherein the step ~~Claim 1 wherein Step A~~ is carried out at least in part by PNA-clamping PCR.

14. (Currently Amended) A method according to either of claims 1 or 2 wherein the step ~~Claim 1 wherein Step A~~ is carried out at least in part by oligonucleotide hybridization.

15. (Currently Amended) A method according to either of claims 1 or 2 wherein the step ~~Claim 1 wherein Step A~~ is carried out at least in part by primer extension.

16. (Currently Amended) A method according to either of claims 1 or 2 wherein the step ~~Claim 1 wherein Step A~~ is carried out at least in part by restriction digestion.

17. (Currently Amended) A method according to either of claims 1 or 2 wherein the ~~Claim 1 wherein Step A is made in a specimen of~~ tissue, cells or body fluid selected from the group consisting of:

i. brain tissue;
ii. brain tissue from the frontal cortex;
iii. nervous tissue;
iv. nerve cells
v. blood
vi. blood cells;
vii. urine;
viii. urinary tract cells;
ix. skin;
x. skin cells;
xi. epithelium;
xii. epithelial cells;
xiii. fibroblasts;

xiv. cerebrospinal fluid; and

xv. cells contained in cerebrospinal fluid.

18-34. (Cancelled)